



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,897	02/03/2004	Tetsuya Ouchi	118534	9187
25944	7590	03/01/2006		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER LEBRON, JANNELLE M	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/769,897

Applicant(s)

OUCHI, TETSUYA

Examiner

Jannelle M. Lebron

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 and 22-27 is/are allowed.
- 6) ☒ Claim(s) 18-20 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/24/04, 02/26/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 18 is objected to because of the following informalities: the limitations "the upstream transfer device" in line 8 and "the recording medium" in line 9 should be replaced with "a upstream transfer device" and "a recording medium", respectively. There is insufficient antecedent basis for these limitations in the claim. Appropriate correction is required.
2. Claim 21 is objected to because of the following informalities: the limitation "the print instruction device" in line 5 should be replaced with "a print instruction device". There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2861

4. Claim 18 is rejected under 35 U.S.C. 102(e) as being anticipated by Kikuchi et al. (JP 2002-113853).

5. Kikuchi et al. discloses a terminal apparatus comprising:

an ink amount measurement device that measures the amount of ink ejected from the print head and stores the amount as a measurement value (paragraph 0033); and

an ink amount determination device that determines whether the measurement value stored in the ink amount measurement device exceeds a preset value when the recording medium is transferred by the upstream transfer device and a front end of the recording medium is moved to a first position (paragraph 0037 and 0038).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2861

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (JP 2002-113853) in view of Ahne et al. (US Patent 6,406,110).
9. Kikuchi et al. teaches the claimed limitations as set forth above except "further comprising a recording medium parameter acquisition device that obtains parameter data representing parameters of the recording medium from the outside" and "further comprising a parameter input device that allows a user to input the parameters of the recording medium."
10. Ahne et al. discloses a print medium sensor that provides a signal to printer controller which represents a characteristics of the print medium (column 6, lines 61-66). As an alternative to, or in addition to, using the medium sensor, a signal representing a characteristic of the print medium can be supplied to the printer controller by an input device, which can be for example, a keypad through which a thickness or paper size input is supplied by the user (column 7, lines 6-16). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a recording medium parameter acquisition device and a parameter input device. One would have been motivated to modify the invention so that the controller can determine which step to take depending on the medium characteristics thus improving printing quality as taught by Ahne et al.

Allowable Subject Matter

11. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: Prior art does not disclose or suggest either alone or combined the claimed "a mode switching device that switches the operation mode of the print system between a suspension mode and a regular mode, in the suspension mode the instructions based on the print data from a print instruction device being interrupted according to the determination result of said ink amount determination device, and in the regular mode the instructions not being interrupted regardless of the determination result of the ink amount determination device."

13. Claims 1-17 and 22-27 are allowed.

14. The following is a statement of reasons for the indication of allowable subject matter:

- Claim 1, 11, 22, 26, and 27:

Prior art does not disclose or suggest either alone or combined the claimed print instruction device "instructs the upstream transfer device to transfer the recording medium from the first position to the downstream transfer device, and when the front end of the recording medium is transferred to the downstream transfer device to be held between the drive roller and the driven roller, further instructs the upstream device to

transfer the recording medium to a second position located at least downstream of the first position, the second position being the position where the printing should be performed next to the printing at the first position, so that the instructions based on the print data are continued when the front end of the recording medium has reached to the second position."

- Claims 2-10, 12-17, and 23-25 are allowable subject matter since they depend on allowable base claims 1, 11, and 22, respectively.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Takahashi et al. (US 2002/0196300) discloses a print system (101 in figure 1) comprising a printhead (7 in figure 2) that ejects ink; an upstream transfer device (3 in figure 2) that transfers the recording medium along the feed path; a downstream transfer device (4 in figure 2) that transfers the recording medium along the discharge path; a print instruction device (figure 14) that provides instructions for the upstream or downstream transfer device; and an ink amount measurement (paragraph 0139) and determination (paragraph 0133) devices; wherein the downstream device is comprised of a drive roller (36 in figure 2) and a driven roller (37 in figure 2) so that the recording medium can be passed through them.


17. Rezanka (US Patent 5,757,407) discloses a method and apparatus for drying liquid ink deposited in a response to image data on a recording medium that uses a coverage device coupled to the controller that "determines when areas of high ink coverage are being deposited on the recording sheet and includes an electrical circuit

Art Unit: 2861

which counts the number of drops being deposited by the printhead as well as the areas of high ink coverage⁴ which can be determined from signals received from a sensor as well as an encoder (column 5, lines 40-50). Such information is processed by the controller so that when the recording sheet enters the dryer the motor is caused to move in a first direction and then in a second direction such that two multiple passes if the recording sheet can be made through the drying zone.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jannelle M. Lebron whose telephone number is (571) 272-2729. The examiner can normally be reached on Monday thru Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


LAMSON NGUYEN
PRIMARY EXAMINER
4/21/06